

Applicant : Andrew RICHARDSON
Appl. No. : 10/581,379
Examiner : Michael S. Andler
Docket No. : 20305-4012

REMARKS

Claims 1-49 are pending in this application. Claims 1-5, 9, 14, 15, 17-22, 31-36, 45, and 46 have been amended for clarity.

I. Rejections Under 35 U.S.C. § 102

Claims 1-6, 8, 9, 14, 15, 17, 18-23, 25, 26, 31-37, 39, 40, 45, 46, and 48 are rejected under 35 U.S.C. § 102 as being unpatentable over U.S. Patent No. 6,578,767 (“Barkan”).

Applicant respectfully traverses the ground for the rejection.

Barkan relates to a low cost bar code reader device having a number of internal components housed inside a device housing which is preferably injection molded out of black plastic (Col. 6, lines 54 - 63). The device has an LED mounted on a circuit board for projecting a beam of light through a “small aperture in the bottom part of the housing” (Col. 4, lines 52-53). Thus, Barkan discloses a light transmissive aperture formed in the plastic body of a low cost bar code reader.

The present claims recite, among other things, a bar code scanner having an elongate light transmissive opening, wherein the opening comprises a slit formed in a metallic element that is mounted relative to the scanner body. Barkan fails to disclose or suggest a slit formed in a metallic element. Thus, Barkan fails to teach or suggest every element required by independent claims 1, 15, 18, 31, 32, 45, and 46, demonstrating that the claims are not predictable uses of elements taught by Barkan.

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For the foregoing reasons, Applicant believes claims 1, 15, 18, 31, 32, 45, and 46, and dependent claims 2-6, 8, 9, 14, 17, 19-23, 25, 26, 33-37, 39, 40, and 48 are in condition for allowance. Applicant respectfully requests that the Examiner withdraw the rejection of claims.

II. Rejections under 35 U.S.C. § 103

Claims 7, 16, 24, 38, and 37 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Barkan in view of U.S. Patent No. 5,451,735 (“Worthington”). Applicant respectfully traverses the grounds for this rejection.

Worthington relates to a flexible circumferential switch including an electrically conductive body means having a circumferential surface. A “stainless steel barcode wand” is given as an example of an electrically conductive body means. A person having ordinary skill in the art would not be motivated to combine the disclosure of Barkan with Worthington. The claimed invention relates to improvements in bar code scanners. See Page 1, lines 15-16. Worthington relates to a very different field of endeavor, namely circumferential switches to which a person having ordinary skill in the art would not refer in connection with arriving at the subject invention.

In addition, as described in Col. 2, lines 13-19, Barkan teaches that “a need for an extremely inexpensive and reliable bar code symbol reader exists for various cost sensitive scanning applications.” Stainless steel is a considerably more expensive material to buy and to manipulate than plastic. Thus, even if a person having ordinary skill in the art were to read Worthington, they would not adapt the scanner of Barkan to use metal, as this would be contrary to the teachings of Barkan. Thus, the pending claims are novel and non-obvious.

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Applicant has amended the claims to clearly bring out the differences between the prior art and the claimed invention. The amended claims specify that the light source and light detector are located in a body and that the “metallic element” is mounted relative to the body. The basis for the amendment can be found, for example, in Figure 2 and Figure 3, which show a main body (2, 2a, 2b) in which is mounted a bar code scanning station (12) and therein a light source (15), light detector (16) and metallic element in the form of a metallic plate (18).

The Examiner is of the view that it would have been obvious to one of ordinary skill in the art to adapt the disclosure of Barkan by providing a stainless steel housing. Even if this argument were accepted (which it is not), it would not apply to the amended claims. It is clear from the amended claims that the “metallic element” is a component of the bar code scanner assembly and is not the same as the “body” of claim 1. Instead, the metallic element is a distinct component mounted relative to the body.

Barkan teaches in the direction of extremely inexpensive plastic bar code scanners in which the aperture is defined by the injection molded plastic housing of the scanner and in which the number of parts is kept to a minimum. *See* Barkan Col. 2, paragraphs 2 and 3. As noted in the specification, the Applicant’s invention, in contrast, relates to a finely worked slit formed in a metallic element which is employed in a bar code scanner in order to obtain improved results. As described on page 2, line 10; page 3, line 8; page 7, lines 8-9 and page 7, line 29 of the present application, the metallic element of the present invention can be worked using high precision metalworking processes such as chemical etching or laser cutting in order to form a precisely defined slit. The more precisely defined the slit, the higher the resolution of scan, which in turn leads to improved scanning, accuracy, and reliability. These advantages are

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particularly important in, for example, banknote validation in order to accurately distinguish between genuine and counterfeit notes and thus prevent or detect fraudulent activity. *See* page 3 lines 29-31.

As illustrated in Figure 6, once the slit is formed, the metallic element is fitted relative to the body in an assembly operation. The resulting structure is inexpensive to manufacture and has been found to be surprisingly effective. An inexpensive plastic material may be used for the body and the finely worked metallic element may be a relatively small component part mounted relative to the body, thus keeping the cost of materials down. In this way, a high accuracy bar code scanner is provided at an acceptable cost level.

There is nothing in the prior art which would provide a person having ordinary skill in the art the feature of a slit formed in a metallic element mounted relative to a body in order to provide the inventive advantages discussed above. None of the cited prior art teaches, either expressly or inherently, all of the elements as claimed. Barkan in view of Worthington do not disclose, nor suggest, the novel features of the present invention as claimed. For these reasons, Applicant respectfully requests that the Examiner withdraw the rejection of claims.

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III. Conclusion

Prompt and favorable action on the merits of the claims is earnestly solicited. Should the Examiner have any questions or comments, the undersigned can be reached at (212) 506-5140.

Respectfully submitted,

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